

Remarks and Arguments

1. Election/Restrictions

Claims 44-51 have previously been cancelled in response to a restriction requirement. Applicants elected claims 1-43 and claims 52-65 without traverse. Applicants reserve the right to submit the cancelled claims in a continuation application.

2. Claim Amendments

For the purposes of advancing prosecution, claims 1 and 52 have been amended. Support for the amendment to claim 1 can be found among other places in claim 2 of the original application, as well as paragraph 9 of the original application. Support for the amendment to claim 52 can be found among other places in claim 53 of the original application, as well as paragraph 9 of the original application.

Claims 7-24, 28-30, 57, 60, 61, and 65 have been amended to reflect their new dependency resulting from amended claims 1 and 52.

Claims 2 and 53 have been withdrawn.

To correct an obvious typographical error, claim 60 has been amended.

3.Claim Rejections

Rejection Under 35 USC §102(b)

The Examiner has rejected claims 1, 25, 26, and 27 under 35 U.S.C. §102(b). Examiner states Slater (US Patent 6,077,664) teaches thermophilic DNA polymerases from *Thermotoga neopolitana* in PCR reactions with sorbitol or DMSO (see whole doc. esp. col. 29 lines 45-65 and col. 83 lines 1-5).

The rejection is believed to be avoided by the amendments to the claims.

Slater describes the use of sorbitol **or** DMSO in a final reaction concentration of 1-5 percent. Slater does not teach the use of sorbitol **and** DMSO. Therefore, Slater is not an appropriate 102(b) reference. Therefore, applicants respectfully request removal of the rejection.

Applicants further note that the Slater description appears to be limited to mixtures comprising *Thermotoga Neopolitana* DNA polymerase in procedures involving long PCR.

Rejection Under 35 USC §103(a)

The Examiner has rejected claims 23, 52, 60, and 62 as being unpatentable over Hoshina (US Patent 5,571,674) in view of Slater (US Patent 6,077,664) stating that Hoshina teaches amplifying ribosomal DNA from bacteria, Slater teaches PCR with *Thermotoga neopolitana* DNA polymerase with sorbitol **or** DMSO, and that one of ordinary skill in the art would have been motivated to apply Slater et al's reaction conditions to Hoshina et al's ribosomal DNA in order to amplify the ribosomal sequences.

The rejection is believed to be avoided by the amendments to the claims.

The PCR of Slater does not describe both sorbitol **and** DMSO. Because all of the elements recited in the relevant claims are not present in the combined prior art references of Slater and Hoshina, a 103(a) rejection is inappropriate. Therefore, the applicants respectfully request removal of the rejection.

Rejection under 35 USC §103(a)

The Examiner has rejected claims 52-54, 57, and 60-65 as being unpatentable over Hoshina (US Patent 5,571,674) in view of Dandliker (US Patent 5,606,045) stating that Dandliker teaches DMSO and sorbitol amplification conditions, Hoshina teaches amplifying ribosomal DNA, and that it would have been prima facie obvious to apply Dandliker's DMSO and sorbitol reaction conditions to Hoshina's ribosomal sequence in order to successfully amplify cDNA transcripts.

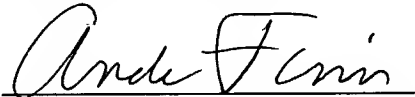
The rejection is believed to be avoided by the amendments to the claims.

Applicant points out that Dandliker teaches 3SR-mediated amplification with DMSO and sorbitol. Further, Dandliker describes only a single concentration of DMSO (10%). However, the relevant present claims recite a DMSO concentration of .5%-8%. Because all of the elements recited in the relevant claims are not in the combined prior art references of Hoshina and Dandliker, a 103(a) rejection is inappropriate. Therefore, the applicants respectfully request removal of the rejection.

FEE AUTHORIZATION and REQUEST FOR TIME EXTENSION

A Petition for a 1-Month Extension of Time is enclosed herewith. If any additional time extensions are required, such time extensions are hereby requested. If any additional fees not submitted with this response are required, please take such fees from Applied Biosystems Deposit Account No. 01-2213 (Order No. 4717).

Respectfully submitted,



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